

the proximal edge of the SG (C-TAG) slid into the orifice of the LCA resulting in occlusion. The subsequently performed LCA-RCA-bypass resolved the perfusion without cerebral deficit. In two other pts distal migration of the SG (C-TAG) was followed by secondary conversion with open thoracic tube graft repair (n=1), or arch debranching and subsequently performed TEVAR(n=1). Proximal stent graft apposition was excellent in 29/42 cases, good in 12/42 cases, and bad in 1 case. No type I endoleak was detectable. In comparison to matched cases treated with former generation of SG the apposition scoring was significantly better.

Conclusion: The newly available thoracic SG both improves proximal apposition of the device at the inner curve of the aortic arch. More data and longer follow-up are required to confirm the applicability of this technique.

TCT-562

Retrograde transpedal access for below-the-knee chronic total occlusions after failed antegrade recanalisation

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Background: The purpose of the study was to evaluate the acute success and clinical impact of retrograde transpedal access for retrograde below-the-knee artery (BTK) chronic total occlusions (CTO) after failed attempts to re-enter the true lumen in the antegrade femoral approach.

Methods: The clinical and angiographic data of 28 consecutive patients with CLI treated by retrograde transpedal recanalisation between 2010 and 2011.02 were evaluated in a pilot study. Patients received daily aspirin, clopidogrel during the procedure. We examined the one-month major adverse events (MAEs). Clinical success was defined as relief of resting pain, healing of ulceration or avoidance of amputation. After re-entry to the true lumen failed or the guidewire passage was unsuccessful during antegrade approach, the anterior tibial or posterior tibial artery was punctured with a transradial 20 G needle under fluoroscopic guidance and coronary guidewire was advanced in the artery.

Results: 26 (92.8%) of 28 procedures were finished successfully with a good angiographic result and flow. The failure rate was 7.2% (1 unsuccessful puncture and 1 failed reentry). Balloon angioplasty was performed in all successful interventions and provisional stenting was done in 7 patients (27%). The procedure was finalised with antegrade rotational atherectomy in one case (3.5%) due to inability to pass the balloon. No major access site complications occurred; however three transient spasm was found in the investigated population (11%). Technical and clinical success was observed in 26 (92.8%) and in 25 patients (89.2%). The MAE in the investigated population was 3.57% (2 major amputations).

Conclusion: Failed antegrade attempts to recanalise CTO-s of BTK vessels can be salvaged using a retrograde transpedal access, with a low complication rate. This technique could be valuable for patients with critical limb ischemia due to popliteal and infrapopliteal occlusions once larger studies with follow-up confirm safety, efficacy, and clinical benefit.

TCT-563

Five-Year Trial of TASC II Type C/D Lesions Undergoing Subintimal Angioplasty or Bypass Surgery Based on Plaque Echolucency

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Background: 5-year study comparing the effectiveness of subintimal angioplasty (SIA) to bypass grafting (BG) for treatment of TASC II type C/D lesions in patients with critical limb ischemia (CLI).

Methods: Of 1076 patients referred with PVD from 2002 to 2007, 206 SIAs in 190 patients and 128 bypass grafts in 119 patients were enrolled in the study. All patients had rest pain and/or tissue loss. Primary endpoints were survival free from amputation and sustained clinical improvement. Secondary endpoints were major adverse events (MAE), the binary restenosis rate, freedom from TLR, and a special quality-adjusted life year (QALY) endpoint (Q-TWiSt) that incorporated both length and quality of life to evaluate treatments

Results: At 5 years, clinical improvement was sustained in 82.8% of the SIA group versus 68.2% of the BG patients (p=0.106). Five-year all-cause survival was similar for SIA (78.6%) and BG (80.1%; p=0.734), as was amputation-free survival (SIA 72.9% versus BG 71.2%; p=0.976). Hyperfibrinogenemia (p=0.009) and C-reactive protein (p=0.019) had negative effects on survival without amputation. Five-year freedom from binary restenosis rates were 72.8% for SIA versus 65.3% for BG (p=0.700). While the 5-year freedom from TLR rates (SIA 85.9% versus BG 72.1%, p=0.262) were not statistically significant, the risk of MAE (p<0.002) and length of hospital stay (p<0.0001) were significantly reduced. Q-TWiSt significantly improved (p<0.001) and cost-per-QALY was reduced with SIA. The 5-year risk of re-intervention (p>0.05) and mean number of procedures (p=0.078) were similar.

Conclusion: Five-year freedom from MAE was enhanced by 20% in the SIA group, with substantial cost reduction and better Q-TWiSt. SIA is a minimally invasive technique that expands amputation-free and symptom-free survival. SIA is a paradigm shift in the management of CLI.

TCT-564

Vertebral Angioplasty Stenting. Are Protection Devices Useful?

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Background: It is now clear that atheroemboli are the rule in any intervention in atherosclerotic disease and seems the root cause of many procedural complications. Embolic Protection Devices (EPD) are largely used to reduce the nb of cerebral emboli during carotid angioplasty stenting (CAS). Recent studies have shown a high incidence of emboli during Vertebral Angioplasty Stenting (VAS) & a comparable frequency & amount of captured emboli during VAS and carotid angioplasty stenting. Neurological complications after VAS are not frequent but could be devastating. So the use of EPD for VAS may be advisable & should reduce the neurological complications during VAS

Methods: We retrospectively determined rates of technical success & 1 month stroke and death associated with stent placement by using EPD (Filterwire) and a new filter Fibernet (Lumen Biomedical) in pts with symptomatic ostial VA stenoses. Technical success was defined as successful EPD deployment and stent placement, successful EPD retrieval & a residual stenosis <30%. 30 day outcomes included any stroke & death. The new EPD (Fibernet) allows capture of debris of 40µ without compromising the flow. Its retrieval catheter is an aspiration catheter allowing meticulous cleaning of the vessel and of the dilated area

Results: In a series of 102 VAS 10 pts treated with EPD. Mean age 69 y. (63-80). ♂:8, left6. Mean% stenosis 80,9±6,8. Mean arterial Ø:4,8±0,5mm. Femoral approach used in all cases. Filterwire:8 pts, Fibernet:2. Technical success was achieved for the 10 pts. Postprocedure residual stenoses:4±3%. Visible debris were removed in 70% of cases (Filterwire:5 and Fibernet:2). Filter deployment time:10mm (7-13mm). No stroke or death observed at 1 month. With Fibernet mean debris area:184 mm2. (aspirated debris:114mm2, debris in the filter70 mm2) Debris analysis will be reported. These results are comparable to the results obtained in CAS

Conclusion: The present study demonstrates the feasibility and safety of VAS using EPD. Further studies are required to determine the exact role of EPD and their indications in VAS. It seems that the results obtained in VAS are comparable to those obtained after CAS.

TCT-565

The Role of Pull-Back Pressure Gradient in Percutaneous Transluminal Angioplasty for Central Vein stenosis in Dialysis Patients

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Background: The severity of residual stenosis (RS) in central vein stenosis (CVS) sometimes hard to be accurately measured by angiographic image. Because of intracoronary pressure is good alternative parameter in coronary intervention, the role of pull-back pressure measurement in percutaneous transluminal angioplasty for CVS was evaluated.

Methods: This study retrospectively reviewed consecutive 94 dialysis patients asked for management of CVS which were divided into two groups by angiographic image or post-intervention pressure gradient (PG), and followed up long term clinical outcomes. 12-month patency rate between groups were compared and analyzed.

Results: The 94 patients consisted of 47 males and 47 females. There were divided into two groups which included 63 cases in successful group (RS<30%) and 31 cases in acceptable group (50%>RS>30%) by angiographic criteria, or which included 51 cases in PG<5 mmHg (PG1 group) and 43 cases in PG>5mmHg (PG2 group) by measured pullback PG. The baseline characteristics and parameters during intervention between groups were almost no statistical difference. 12-month patency rate in successful group vs. acceptable group were 54% vs. 39% (P=0.167), while in PG1 group and PG2 group were 60% vs 37% (P=0.048). Further, subgroup analysis between PG1 group vs. group accordance to the criteria of accepted group plus PG2 group were 60% vs 29% (P=0.058).